Commonwealth of Kentucky
Division for Air Quality

PERMIT APPLICATION SUMMARY FORM

Completed by: Frough Sherwani

GENERAL INFORMATION:

Name:	General Motors Corporation
Address:	600 Corvette Drive P. O. Box 90006 Bowling Green, KY 42102
Date application received:	December 11, 1998
SIC/Source description:	3711, Automobile /Truck Assembly Operations
Source ID #:	21-227-000005
Source A.I. #:	4109
Activity #:	APE20040002
Permit number:	V-06-013

APPLICATION TYPE/PERMIT ACTIVITY:

[X] Initial issuance	[ ] General permit
[ ] Permit modification	[ ]Conditional major
__Administrative	[X] Title V
__Minor	[ ] Synthetic minor
__Significant	[X] Operating
[ ] Permit renewal	[ ] Construction/operating

COMPLIANCE SUMMARY:

[ ] Source is out of compliance [ ] Compliance schedule included

[ ] Compliance certification signed

APPLICABLE REQUIREMENTS LIST:

[ ] NSR	[ ] NSPS	[X] SIP
[X] PSD	[X] NESHAPS MACT 40 CFR 63, Subpart IIII, DDDDD	
[ ] Other	[ ] Netted out of PSD/NSR	

[ ] Not major modification per 401 KAR 51:001, 1(116)(b)

MISCELLANEOUS:

[ ] Acid rain source

[ ] Source subject to 112(r)

[X] Source applied for federally enforceable emissions cap

[ ] Source provided terms for alternative operating scenarios

[X] Source subject to a MACT standard

[ ] Source requested case-by-case 112(g) or (j) determination

[ ] Application proposes new control technology

[X] Certified by responsible official

[ ] Diagrams or drawings included

[ ] Confidential business information (CBI) submitted in application

[ ] Pollution Prevention Measures

[ ] Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

Pollutants	Actual 2004 (tpy)	Potential (tpy)
PM/PM10	5.39	17.47
VOC	468	1241.4**
SO2	0.068	0.7928
CO	2.73	10.9
NO2	12.33	266.4
MIBK	NA*	25.2045
2-Butoxyethanol	NA*	3.3
Diethylene Glycol monobutyl ether	NA*	32.9
Ethylene Glycol monobutyl ether	NA*	3.6
Ethylene Glycol	NA*	3.3
MEK	NA*	5.52
Methanol	NA*	102.17
MIBK	NA*	25.20
EthylBenzene	NA*	69.2
Xylene	NA*	326.87
Naphthalene	NA*	6.72
Cumene	NA*	11.6
2-Hexyloxyethanol	NA*	35.4
Etylene glycol m-propyl ether	NA*	0.16
Toluene	NA*	26.46
Etylene glycol Monobutyl Ether Acetate	NA*	44.30
Benzene	NA*	0.2135
MDI	NA*	3.1
GE	NA*	11.38
4-Methyl-2-Pentanone	NA*	5.28
HAPS	NA*	741.86

* no tracking record available

****** Sourcewide emissions of VOCs shall not exceed 719 tons per rolling 12-month period.

TOXIC SUMMARY:

Toxics	Conc. UG/M**3	PRG# UG/M**3	Conc.<PRG#
Ethylbenzene	1.551	1.746	Yes
Formaldehyde	0.283	0.14777328	Yes
Diethylene Glycol Monobutyl Ether	6.724	20.805	Yes
1,2,4 -Trimethylbenzene	1.943	6.205	Yes
N-Butyl Alcohol	1.760	9.49	Yes
Benzene	0.022	0.23185118	Yes
Methylenediphenyl Diisocynade	0.042	0.6205	Yes
Naphthalene	0.049	3.12805	Yes
Acetone	2.199	365	Yes
Methyl Tertiary Butyl Ether	0.109	19.2105	Yes
Benzene, 1-chloro-4-(Trifluoromethyl)	0.410	73	Yes

Methyl Iso Butyl Ketone	0.350	83.4285714	Yes
Toluene	1.151	401.5	Yes
Methyl Alcohol	7.487	1825	Yes
Cumene	2.71	401.5	Yes
Ethylene Glylcol	4.398	7300	Yes
Propylene Glycol	0.001	3.319	Yes
Hexane	0.051	208.57	Yes
Methyl Ethyl Ketone	0.237	1042.85	Yes
Isobutyl Alcohol	0.238	1095	Yes
Propylene Glycol Monobutyl Ether	0.410	2085.71	Yes
Ethylene Glycol Monobutyl Ether	2.465	13505	Yes
Butyl Benzene Phthalat	0.109	730	Yes
Ethyl Acetate	0.410	3285	Yes

SOURCE DESCRIPTION:

General Motors Corporation owns and operates an automobile manufacturing facility located at 600 Corvette Drive in Bowling Green, Warren County, KY. Vehicle assembly consists of a body shop, paint shop, general assembly and remote or multiple locations vehicle assembly support functions.
The following applications were received from the source.

- September 16, 1996 Title V (Phase I)
- December 11, 1998 Title V (Phase II)
- August 31, 2004 Update to Title V
- August 31, 2004 (Electrocoat dip prime tank)

The source has the following permits

- Construction permit (C-79-100)
- Construction Permit (C-79-100 Revision 1)
- Construction Permit (C-82-20)
- Operating permit (O-85-02)
- Operating Permit (O-85-02 Revision 1)
- PSD permit (F-97-022),
- VS permit (VS-04-002)
- No permit required letter, issued on July 28, 2000.

EMISSIONS AND OPERATING CAPS DESCRIPTIONS:

Limits from previous permits:

1. The Source's hours of operation shall not exceed 5094 per rolling 12-month period.
2. VOC source wide emissions shall not exceed 8907 pounds per day.
3. The facility shall not produce more than 76,410 vehicles (Corvettes and Cadillacs) per rolling 12-month period.
4. The source wide coating usage shall not exceed 525,773 gallons per rolling 12-month period
5. The minimum Destruction Efficiency for the Regenerating Thermal Oxidizer (RTO) must be maintained at 80%.
6. Sourcewide emissions of VOCs shall not exceed 719 tons per rolling 12-month period.

7. The permittee shall not discharge or cause to be discharged into the atmosphere, emissions from coating which exceed the following VOC content

a.	Body Prime System:	5.29 lb/gal of coating
b.	Top Coat System (Body), Metallic Colors:	5.3 lb/gal of coating
c.	Top Coat System (Body), Solid Colors:	5.3 lb/gal of coating
d.	Top Coat System, (Body) Clear Colors:	4.4 lb/gal of coating
e.	Top Coat System (Bumper), Metallic Colors:	5.3 lb/gal of coating
f.	Top Coat System (Bumper), Solid Colors:	5.3 lb/gal of coating
g.	Top Coat System (Bumper), Clear Colors:	5.0 lb/gal of coating
h.	Black out System:	4.2 lb/gal of coating
i.	Uniframe Prime System:	0.88 lb/gal of coating

all above limits exclude water or exempt solvent (E. S.), or both, and are as delivered to the applicator

401 KAR 59:010,

8. All affected facilities were constructed after the classification date (July 2, 1975). In addition, all these affected facilities are below 0.5 ton/hr (on a potential basis). Therefore, for emission from a control device or stack, no person shall cause, suffer, allow or permit the emission in to the open air of particulate matter (PM) from any affected facility in excess of 2.34 lb/hr.
9. The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity.

401 KAR 59:015;

10. Particulate matter emissions from EP 34 (Hot Water Generator# 1) shall not exceed 0.56 lb/mmBTU actual heat input; per three hour average;
11 Particulate matter emissions from EP 35 (Hot Water Generator# 2) shall not exceed 0.45 lb/mmBTU actual heat input, per three hour average;
12. Particulate matter emissions from EP 36 (Hot Water Generator# 3) shall not exceed 0.41 lb/mmBTU actual heat input, per three hour average;
13. Sulfur dioxide emissions from EP 34 shall not exceed 3.0 lb/mmBTU actual heat input;
14. Sulfur dioxide emissions from EP 35 shall not exceed 2.07 lb/mmBTU actual heat input;
15. Sulfur dioxide emissions from EP 36 shall not exceed 1.71 lb/mmBTU actual heat input.

From BACT Determination (Permit # F-97-022);

16. VOC emissions from EP 16 (Miscellaneous Operations) shall not exceed 5.5 pounds/vehicle plus 106.9 tons/ per rolling 12-month period.

401 KAR 59:225;

17. The affected facility, (EP 12, Prime Coat System) is exempt from Section 3 of regulation 401 KAR 59:225 if the VOC content of the coating is less than 0.36 kg/l of coating (three (3.0) lb/gal), excluding water or exempt solvent (E. S.) or both, delivered to applicators associated with color coat or first coat on untreated ferrous substrate.

40 CFR Part 63 Subpart IIII;

18. The combined organic HAP emissions from the electrodeposition primer, primer surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesives operations must meet an emission limit of 0.6 pounds of HAPs per gallon of coating solids deposited during each month

    or

    The combined organic HAP emissions from the electrodeposition primer, primer surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesives operations must meet an emission limit of 1.1 pounds of HAPs per gallon of coating solids deposited during each month if

    i. each individual material added to the electrocoat system contains no more than 1.0 percent by weight of any organic HAP and no more than 0.10 percent by weight of any organic HAP which is a OSHA – defined carcinogen or
    ii. The oven control device has a destruction or removal efficiency of at least 95 percent.
19. The monthly average of organic HAP emissions from all adhesives and sealer materials other than materials used as components of glass bonding systems is limited to 0.01 pounds per pound of adhesive and sealer material used.
20. The monthly average of organic HAP emissions from all deadener materials is limited to 0.01 pounds per pound of deadener material used.

40 CFR Part 63, Subpart DDDDD
For Emission Points 36 and 37

21. **40 CFR Part 63, Subpart DDDDD** National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters

    § 63.7506 (b)

    EP 35 and 36 are classified as large liquid fuel units. These emission points are subject to only the initial notification requirements in § 63.9(b) (i.e., they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, record keeping and reporting requirements of this subpart or any other requirements in subpart A of this part). The source submitted the notification on February 7, 2005.

401 KAR 63:020;

22. **401 KAR 63:020**; Potentially hazardous matter or toxic substances, applicable to each affected facility which emits or may emit potentially hazardous matter or toxic substances

    An air dispersion model for toxic substance (air toxics) for the affected facilities listed in Section B of this permit was submitted on May 11, 2005 and it was approved by the Division on October 27, 2005. Therefore, the source is deemed in compliance with 401 KAR 63:020 based on the emission rates of toxics given in the application submitted by the source. If the source alters process rates, material formulations, or any other factor that would result in an increase of toxic emissions or the addition of toxic emissions not previously evaluated by the Division, the source shall submit the appropriate application forms pursuant to 401 KAR 52:020, Section 3(1)(a), along with modeling to show that the facility will remain in compliance with 401 KAR 63:020.